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Committee on the Peaceful Uses of Outer Space
Scientific and Technical Subcommittee
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Draft report

Addendum

IV. Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment

1. In accordance with General Assembly resolution 69/85, the Subcommittee considered agenda item 6, "Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment".

2. The representatives of Belarus, Brazil, Canada, China, Colombia, Egypt, India, Indonesia, Italy, Japan, Pakistan, South Africa and the United States of America made statements under agenda item 6. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

3. The Subcommittee heard the following scientific and technical presentations:

(a) "Initiatives of the Federal Space Agency relating to the use of remote sensing data in the interests of sustainable development", by the representative of the Russian Federation;

(b) "NOAA meteorological satellite update", by the representative of the United States;

(c) "Introduction to application achievement of the GF-1 and GF-2 satellites", by the representative of China;

(d) "The Global Water Initiative", by the observer for the International Space University;

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(e) "ISPRS is serving society with information from images", by the observer for the International Society for Photogrammetry and Remote Sensing;

(f) "Copernicus, a European achievement", by the observer for the European Space Agency (ESA);

(g) "Sixth PSIPW award winners", by the observer for the Prince Sultan Bin Abdulaziz International Prize for Water (PSIPW).

4. In the course of the discussions, delegations reviewed national, bilateral, regional and international programmes on remote sensing, notably in the following areas: monitoring climate change; disaster management; monitoring geological processes; volcanology and seismology; managing ecosystems and natural resources; monitoring air and water quality; meteorology; agriculture and fishery; irrigation; monitoring deforestation and forest degradation; mapping biodiversity resources, coastal zones, watershed development and land use; ice-cover monitoring; oceanography; wildlife habitat assessment; rural development and urban planning; global health; and food security and crop yield quantification.

5. The Subcommittee noted the importance of space-technology-based data, in situ monitoring and reliable geospatial information for sustainable development policymaking, programming and project operations, as stressed in the outcome document of the United Nations Conference on Sustainable Development "Rio+20" (A/CONF.216/16). The Subcommittee noted that comprehensive, coordinated and sustained Earth observation systems provided essential benefits to humankind and that they continued to play an important role in the post-2015 development agenda.

6. The Subcommittee noted significant capacity-building efforts by developing countries in using Earth observation to fight poverty, improve quality of life and advance their socioeconomic development through a rational and sustainable exploitation of resources. In this regard the Subcommittee also noted the capacity-building efforts in remote sensing undertaken by the regional Centre for Space Science and Technology Education for Asia and the Pacific.

7. The Subcommittee reaffirmed the importance of international cooperation in Earth observation activities and took note of a number of regional and international initiatives aimed at strengthening the use of remote sensing data to make well-informed decisions, in particular for the benefit of developing countries, such as the Regional Visualization and Monitoring System (SERVIR), supported by the United States, the Space Applications for Environment (SAFE) initiative of the Asia-Pacific Regional Space Agency Forum (APRSAF), and the Land Cover Classification System of the Food and Agriculture Organization of the United Nations.

8. The Subcommittee noted a number of existing operational Earth observation satellites that provided high-resolution, high-accuracy and sustained observation of the Earth environment, and a number of forthcoming launches of Earth observation satellites. It also noted plans to develop and build such satellites jointly and plans for a new generation of high-resolution Earth observation systems. Combined with ground-based systems, all of those could further improve the monitoring of the Earth environment.

9. The Subcommittee also noted the increased availability of space-based data at little or no cost. Those include remote sensing data from sources such as Landsat of

the United States, the Constellation of Small Satellites for Mediterranean Basin Observation (COSMO-SkyMed) of Italy, the Greenhouse Gases Observing Satellites of Japan, the China-Brazil Earth resources satellites (CBERS), the Megha-Tropiques and the Satellite for Argos and AltiKa (SARAL) joint satellite missions of France and India, the joint remote sensing satellite constellation of Belarus and the Russian Federation, and the Sentinel satellites of the ESA Copernicus programme. The Subcommittee also took note of joint development plans for two Earth observation satellites undertaken by Algeria and South Africa as part of the African Resource Management constellation.

10. The Subcommittee noted the continued support for the activities of the Committee on Earth Observation Satellites (CEOS), which at its twenty-eighth plenary session in Tromsø, Norway, in November 2014 made a commitment to improving availability of global space-based climate data, integrating satellite and ground-based observations, and enhancing disaster risk management. The Subcommittee also noted that, at that plenary session, the Japan Aerospace Exploration Agency took up the chairmanship of CEOS for 2015.

11. The Subcommittee noted the continued support for efforts of the Group on Earth Observations (GEO) to develop a Global Earth Observation System of Systems (GEOSS) and develop its next 10-year implementation plan. The Subcommittee also noted that the next GEO ministerial summit will be held on 13 November 2015 in Mexico City.

12. The Subcommittee noted that the Sixth Space Congress, held in Minsk in 2014, had addressed, among other issues, new methods for processing remote sensing imagery and noted the proposal for a joint United Nations/Belarus workshop on remote sensing, to be organized on the margins of the Seventh Space Congress in 2016.

13. The Subcommittee noted the importance of data democracy policies aimed at empowering users in developing countries so that they can make full use of remote sensing data and applications to address various issues of societal relevance.

14. The Subcommittee also noted the growing involvement of private entities in Earth observation. In this regard, the Subcommittee noted that it was important to have appropriate national regulatory frameworks in place to ensure that remote sensing data are utilized and distributed in a responsible manner.

15. The view was expressed that all nations should consider creating effective regulatory frameworks for remote sensing, such as the Remote Sensing Systems Act recently adopted by Canada, and in doing so should review the report of the Working Group of the Legal Subcommittee on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space for further guidance (see A/AC.105/1045).

XII. Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries, without prejudice to the role of the International Telecommunication Union

16. In accordance with General Assembly resolution 69/85, the Subcommittee considered agenda item 14, "Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries, without prejudice to the role of the International Telecommunication Union", as a single issue/item for discussion.

17. The representatives of Brazil, Colombia, Saudi Arabia and Venezuela (Bolivarian Republic of) and the representative of Chile, on behalf of the Group of Latin American and Caribbean States, made statements under agenda item 14. The observer for ITU also made a statement under the item. During the general exchange of views, statements relating to the item were made by representatives of member States.

18. The Subcommittee welcomed the information provided in the annual report for 2014 of the Radiocommunication Bureau of ITU on the use of the geostationary satellite orbit and other orbits (www.itu.int/ITU-R/space/snl/report/), as well as other documents referred to in conference room paper A/AC.105/C.1/2015/CRP.6. The Subcommittee invited ITU to continue to submit reports to it.

19. Some delegations expressed the view that the geostationary orbit was a limited natural resource that was at risk of becoming saturated, thereby threatening the sustainability of space activities in that environment; that its exploitation should be rationalized; and that it should be made available to all States, under equitable conditions, irrespective of their current technical capabilities, taking into particular account the needs of developing countries and the geographical position of certain countries. Those delegations were also of the view that it was important to use the geostationary orbit in compliance with international law, in accordance with the decisions of ITU and within the legal framework established in the relevant United Nations treaties.

20. The view was expressed that the geostationary orbit, as a limited natural resource clearly in danger of saturation, must be used rationally, efficiently, economically and equitably. That principle was deemed fundamental to safeguarding the interests of developing countries and countries with a certain geographical position, as set out in article 44, paragraph 196.2, of the Constitution of ITU, as amended by the Plenipotentiary Conference held in Minneapolis, United States, in 1998.

21. The view was expressed that the geostationary orbit was an integral part of outer space and that, therefore, its use should be governed by the provisions of the United Nations treaties on outer space and the ITU regulations.

22. Some delegations expressed the view that the geostationary orbit was part of outer space, that it was not subject to national appropriation by claim of sovereignty, by means of use or occupation or by any other means, including by means of use or repeated use, and that its utilization was governed by the Outer Space Treaty and ITU treaties.

23. Some delegations expressed the view that the geostationary orbit provided unique potential for access to communications and information, in particular for assisting developing countries in implementing social programmes and educational projects and for providing medical assistance.

24. Some delegations expressed the view that, in order to ensure the sustainability of the geostationary orbit, it was necessary to keep that issue on the agenda of the Subcommittee and to explore it further, through the creation of appropriate working groups and legal and technical intergovernmental panels, as necessary.

25. Some delegations expressed the view that the Working Group on the Long-term Sustainability of Outer Space Activities should consider a guideline on ensuring the equitable access of all States to that unique natural resource.

26. The view was expressed that the legal regime for outer space was different from the legal regime for airspace, which was guided by the principle of sovereignty.

XIII. Draft provisional agenda for the fifty-third session of the Scientific and Technical Subcommittee

27. In accordance with General Assembly resolution 69/85, the Subcommittee considered agenda item 15, "Draft provisional agenda for the fifty-third session of the Scientific and Technical Subcommittee".

28. The Subcommittee noted that the Secretariat had scheduled the fifty-third session of the Subcommittee to be held from 15 to 26 February 2016.

29. The Subcommittee noted that, in accordance with General Assembly resolution 69/85, it would submit to the Committee its proposal on the draft provisional agenda for the fifty-third session of the Subcommittee and recommended that the following substantive items be included in the draft provisional agenda:

1. General exchange of views and introduction of reports submitted on national activities.
2. United Nations Programme on Space Applications.
3. Space technology for socioeconomic development in the context of the United Nations Conference on Sustainable Development and the post-2015 development agenda.

4. Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment.

5. Space debris.

6. Space-system-based disaster management support.

7. Recent developments in global navigation satellite systems.

8. Space weather.

9. Near-Earth objects.

10. Use of nuclear power sources in outer space.

(Work for 2016 as reflected in the extended multi-year workplan of the Working Group (A/AC.105/1065, annex II, para. 9))

11. Long-term sustainability of outer space activities.

(Work for 2016 as reflected in the multi-year workplan of the Working Group ((A/64/20), para. 161) and extended by the Committee at its fifty-seventh session (A/69/20, para. 199))

12. Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries, without prejudice to the role of the International Telecommunication Union.

(Single issue/item for discussion)

13. Draft provisional agenda for the fifty-fourth session of the Scientific and Technical Subcommittee, including identification of subjects to be dealt with as single issues/items for discussion or under multi-year workplans.

30. The Subcommittee agreed that the topic for the symposium to be organized in 2016 by the Office for Outer Space Affairs should be "The role of industry in space exploration".

31. The Subcommittee noted with concern that during the present session there had not been enough time for deliberations by the Subcommittee and its working groups to conduct their work with interpretation services. It was noted that during the session, [66] scientific and technical presentations had been delivered. In that connection, the Subcommittee noted the criteria established by the Committee at its fifty-fourth session in 2011 (A/66/20, para. 298) and the agreement by the Subcommittee made at its fiftieth session in 2013 (A/AC.105/1038, para. 242), and considered that it was necessary to revise those criteria in order to secure the necessary time needed for the work of the working groups and to give the Secretariat a clear mandate to implement those criteria. The Subcommittee therefore decided that:

(a) Maximum flexibility should be applied in the scheduling of items;

(b) As a general rule, statements should not exceed 10 minutes;

(c) The number of scientific and technical presentations should be limited to a maximum of three presentations per meeting, presentations should be closely linked to the agenda items of the Subcommittee, and they should not exceed 15 minutes in duration. The Chair should remind delegations if that length of time is exceeded;

(d) Member States and observers of the Committee should communicate to the Secretariat their wish to make scientific and technical presentations and under which item the presentation is to be made, in advance of the session, in order to optimize the plan of work of the session;

(e) Speaking notes for scientific and technical presentations should be provided to facilitate simultaneous interpretation;

(f) A list of presentations should be made available to all delegations on the first day of the session, in case there are minor amendments to be made to the title, agenda item or presenter of the presentations listed, and that list should be closed by the adjournment of the last plenary meeting of that day. The Secretariat should not allow additional requests for presentations after that day.

32. The Subcommittee recommended that the same criteria should apply, as appropriate, to the organization of work of the Committee, which regularly also had a high number of scientific and technical presentations.

33. The Subcommittee requested the Secretariat to report to the Committee at its fifty-eighth session on the modalities of organizing the time of plenary meetings in order to allow working groups to meet before the delivery of scientific and technical presentations, and to report on any available technical means of assisting delegations in keeping track of the timing of statements and presentations.

34. The Subcommittee requested the Secretariat to make available for the sessions of the Committee and its Subcommittees in 2016 a compendium containing the rules, procedures and practices of the Committee and its subsidiary bodies.

35. Some delegations expressed the view that the scheduling of scientific and technical presentations outside plenary meetings should be considered.

36. The view was expressed that multiple statements should not be delivered by the same delegation under the same agenda item.

37. Some delegations expressed the view that while general statements could be limited to one statement per delegation, delegations had the right to make as many interventions under any agenda item, as necessary.

38. The view was expressed that consideration of legal aspects of space activities should be undertaken during the sessions of the Legal Subcommittee, in order to allow enough time for consideration of technical aspects by the Scientific and Technical Subcommittee.